WO 2005/036928

PCT/IB2004/003259

CLAIMS

- 1. Radiant device comprising:
- a supporting frame (2);

15

- at least a radiant element (4) having two mutually opposed ends (4a) provided with electrical connection terminals (7) and engaged to hooking groups (3) of the supporting frame (2);
 - characterized in that it further comprises an elastic element (9) placed between each end (4a) of the radiant element (4) and the hooking assembly (3), so as to couple elastically said radiant element (4) with the supporting frame (2).
 - 2. Device according to claim 1, characterized in that each of the hooking assemblies (3) delimits a housing chamber (10) for the electrical connection terminals (7), and in that the elastic element (9) encloses the end (4a) of the radiant element (4) so as to seal said housing chamber (10).
- 3. Device according to claim 2, characterized in that
 the elastic element (9) has a portion shaped as a
 frustum of cone (11) coaxial to the end (4a) of the
 radiant element (4) and converging towards said radiant element (4) getting away from the hooking assembly
 (3).
- 25 4. Device according to claim 1, characterized in that

WO 2005/036928

-16-

PCT/IB2004/003259

the elastic element (9) has an inner tubular portion (12) associated to the end (4a) of the radiant element (4) and an outer collar (13) associated to the hooking assembly (3).

- 5 5. Device according to claim 4, characterized in that said elastic element (9) further comprises an intermediate portion basically shaped as a frustum of cone and developing from a first end (12a) of the inner tubular portion (12) as far as said outer collar (13).
- of. Device according to claim 5, characterized in that said inner tubular portion (12), outer collar (13) and intermediate portion of said elastic element (9) delimit a ring-shaped cavity (14) pointing towards the corresponding hooking assembly (3).
- 7. Device according to one or more claims 4 to 6, characterized in that the inner tubular portion (12) is elastically fitted onto the end (4a) of the radiant element (4).
- 8. Device according to one or more claims 4 to 7, characterized in that the outer collar (13) has a circumferential groove (13a) for the engagement with a protrusion (15) of the hooking assembly (3) delimiting an opening (16) facing the housing chamber (10).
- 9. Device according to claim 8, characterized in that the circumferential groove (15) is obtained close to

WO 2005/036928 PCT/IB2004/003259

-17-

an edge (13b) of the outer collar (13) opposed to the first end (12a) of the inner tubular portion (12).

10. Device according to one or more claims 5 to 9, characterized in that the outer collar (13) converges towards the radiant element (4) getting away from the

corresponding hooking assembly (3).

- 11. Device according to one or more claims 1 to 10, characterized in that the elastic element (9) is wholly made of a silicone-based elastomerico material.
- 12. Device according to one or more claims 2 to 11, characterized in that each of the hooking assemblies (3) of the supporting frame (2) comprises a first and a second cap (17, 18) joined to each other so as to define the housing chamber (10).
- 13. Device according to claim 12, characterized in that the second cap (18) has an opening (16) facing the housing chamber (10) for the engagement with the elastic element (9).
- 14. Device according to one or more claims 2 to 13,

 20 characterized in that the supporting frame (2) further

 comprises at least a connecting rod (20) arranged be
 tween the hooking assemblies (3), so as to house elec
 trical conductors (21) connecting the electrical con
 nection terminals (7) of the ends (4a) of the radiant

 25 element (4).

WO 2005/036928 PCT/IB2004/003259

- 15. Device according to one or more claims 1 to 14, characterized in that the supporting frame (2) further comprises a reflecting plate-shaped body (22) basically parallel to the longitudinal development of the radiant element (4) and having mutually opposed end edges (22a) engaged each to one of the hooking assemblies (3) of the supporting frame (2).
- 16. Device according to claim 15, characterized in that the reflecting plate-shaped body (22) has a plurality of openings (23) on each of the elastic elements (9).
 - 17. Device according to claim 16, characterized in that each of the hooking assemblies (3) further comprises a plurality of engaging hooks (24) with the openings (23) of the reflecting plate-shaped body (22), so as to block said reflecting plate-shaped body (22) to the hooking assembly (3).

15

20

25

- 18. Device according to claim 17, characterized in that the engaging hooks (24) are placed on the second cap (18) and held against the reflecting plate-shaped body (22) by the fastening elements (27) between the second cap (18) and the first cap (17).
- 19. Device according to one or more claims 1 to 18, characterized in that said radiant element (4). comprises:

a central body (5) to be electrically heated; two electrical conductors (6) electrically connected to said central body (5) on the opposed ends (5a) of the latter;

- an envelope (8) made of transparent material extending around said central body (5) and around said conductors (6), said central body (5) defining on said envelope (8) a central area (A) subject to heating and said conductors (6) defining peripheral areas (B) to be engaged by the elastic elements (9).
 - 20. Device according to claim 20, characterized in that each peripheral area (B) of the envelope (8) defined by the conductor (6) of said radiant element (4) extends longitudinally for not less than 25 mm.